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Re: S/N 10/679,908

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COMMENTS:

For filing in connection with the application of Robert E. Smith III, serial number 10/679,908 filed October 6, 2003, entitled: Undersea Hydraulic Coupling for Use with Manifold Plates:

11-page Appeal Brief

1-page Request to Charge Deposit Account

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Robert E. Smith III

Serial Number: 10/679,908

Filed: 10/06/2003

**For: UNDERSEA HYDRAULIC
COUPLING FOR USE WITH
MANIFOLD PLATES**

§ 87(2)(b)

Confirmation No. 3821

Examiner: Thomas A. Beach

Group art unit: 3671

Atty Docket No. 221-0073US

Commissioner for Patents
P. O. Box 1450
Alexandria, Virginia 22313-1450

APPEAL BRIEF

(i) Real party in interest.

The real party in interest is the assignee of the entire interest in the invention and application, National Coupling Company, Inc., a Texas corporation.

(ii) Related appeals and interferences.

There are no related appeals or interferences.

(iii) Status of claims.

Claims 1 – 9 are rejected. Claims 1 – 9 are being appealed.

CERTIFICATE OF TRANSMISSION

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By:

Christopher D. Keirs, Reg. No. 32,248

Date:

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(iv) Status of amendments.

No amendment was filed subsequent to final rejection.

(v) Summary of claimed subject matter.

The subject invention provides a new way to mount hydraulic couplings on a manifold plate. Manifold plates are commonly used to join hydraulic couplings in undersea applications.

The claimed invention utilizes a tail on the non-coupling end of an hydraulic coupling member to mount the coupling member to a manifold plate. [¶0006] The tail is machined to fit through pre-cut holes in a manifold plate. [¶0006] A clearance is provided between the outer diameter of the tail and the inner diameter of the hole in the manifold plate such that the tail fits easily through the hole. [¶0014] The tail has positioning members on its outer diameter. [¶0014] When inserted into the hole in the manifold plate, the positioning members are compressed so as to provide an interference fit to the bore of the hole. [¶0014] This interference fit holds the coupling member in a substantially perpendicular position relative to the manifold plate. [¶0014] In certain embodiments, a retaining ring used to hold the tail in place in the hole in the manifold plate also has a positioning member that compresses against the manifold plate on the opposite side of the male or female end of the coupling to assist in holding the coupling perpendicular to the plate. [¶0017]

An embodiment of the invention according to claim 1 is shown in Figure 2:

1. An undersea hydraulic coupling member (14) comprising:
 - (a) a tail (18);
 - (b) at least one substantially rigid positioning member (30) associated with the tail (18), wherein the substantially rigid positioning member (30) is in contact with the inner bore of a manifold plate (16) when the tail is inserted through the manifold plate.

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An embodiment of the invention according to claim 7 is shown in Figure 4:

7. An undersea hydraulic coupling member (14) comprising:
- (a) a tail (18);
 - (b) at least one substantially rigid positioning member (30) associated with the tail (18), wherein the substantially rigid positioning member (30) is in contact with the inner bore of a manifold plate (16) when the tail is inserted through the manifold plate; and
 - (c) a retainer ring (50) with a substantially rigid positioning member (52) associated with the face of the retainer ring that will engage with the manifold plate (16).

(vi) Grounds of rejection to be reviewed on appeal.

The final Office Action rejected claims 1 – 9 under §102(b) as being anticipated by U.S. Patent No. 5,015,016 (Smith). The final Office Action contends that “Smith shows an undersea hydraulic coupling member having a **tail 74**, at least one substantially rigid positioning member 26 associated with the tail, wherein the substantially rigid positioning members are in contact with the inner bore 73 of a manifold plate when the tail is inserted through the manifold plate (figure 1).”

(vii) Argument.

Each of the claims requires an undersea hydraulic coupling member comprising a tail with an associated, substantially rigid, positioning member. The “tail” of an hydraulic coupling is defined in the specification of the subject application:

The female member generally is a cylindrical body with a relatively large diameter longitudinal bore at one end and a relatively small diameter longitudinal bore or tail at the other. The tail facilitates insertion through manifold plates, and

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connections to hydraulic lines, while the large bore seals, and slidingly engages, the male member of the coupling. The male member includes a cylindrical portion at one end having an outer diameter approximately equal to the diameter of the large bore in the female member of the coupling. The male member also includes a tail connection at its other end to facilitate insertion through a manifold plate, and connection to hydraulic lines. [¶ 0002; *emphasis supplied*]

The present invention provides a tail on the non-coupling end of both a male and female member of a hydraulic coupling device. The **tail** is machined to fit through pre-cut, holes in a manifold plate. The clearance between the outer diameter of the **tail** and the inner diameter of the hole in the manifold plate is such that the tail will fit easily through the hole. The tail has positioning members on its outer diameter that when inserted fully into the hole in the manifold the positioning members compress to an interference fit which will hold the coupling in a normal, i.e., substantially perpendicular, position to the manifold plate. [¶ 0006; *emphasis supplied*]

Element 74 of the Smith reference is not a tail – it is the wall of the probe of the male member 13 (see Fig. 6 of Smith). The connector disclosed in the Smith reference has a conventional threaded tail – “probe handle” 72.

The male member 13, as shown in FIG. 4, comprises generally three cylindrical shapes. A probe handle 72 is a cylinder of substantially uniform outside diameter. Threads 73 may be added to the external surface to facilitate attachment to a coupling manifold, as explained above, or the external surface may be machined smooth and the probe 13 may be attached to the manifold by means of set screws (not shown). The probe handle 72 and **probe wall 74** lie along the same longitudinal axis and are connected by a first shoulder 76. The first shoulder 76 includes a truncated, conical section 76a, the larger diameter facing the handle 72, and the smaller diameter being coincident with the end of **probe wall 74**. [col. 7; lines 5-18]

Since element 74 is on the coupling end of the male member, it cannot be the tail as that term is defined in the specification. Probe handle 72 of the coupling disclosed in Smith is

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the “tail” of that coupling’s male member and probe handle 72 has no associated “substantially rigid positioning member” as required by claims 1 – 9.

All the claims additionally require a substantially rigid positioning member that is in contact with the inner bore of a manifold plate when the tail is inserted through the manifold plate. The Office Action attempts to equate soft seal 26 of the Smith reference with the claimed substantially rigid positioning member. But element 26 of the Smith reference is not in contact with (or even near) the inner bore of a manifold plate. Rather, it is provided “for sealing between the receiving bore 61 and the outer circumference of the male member 13.” [col. 6; lines 9-14] The manifold plates are shown in phantom at the top and bottom of Fig. 6 of the Smith reference. As may be seen in Fig. 6, element 26 is not in contact with element 73 as the Office Action contends.

Legal Authority

In *United States v. Adams*, the Supreme Court confirmed that “[w]hile the claims ... limit the invention, and specifications cannot be utilized to expand the patent monopoly, ... claims are to be construed in the light of the specifications and both are to be read with a view to ascertaining the invention.” 178 USPQ 479, 482 (1966)

In *Autogiro Co. of America v. United States*, the Court of Claims noted that “the specification aids in ascertaining the scope and meaning of the language employed in the claims inasmuch as words must be used in the same way in both the claims and the specification. ... The use of the specification as a concordance for the claim is accepted by almost every court, and is a basic concept of patent law.” 155 USPQ at 702-03 (1966)

In *Standard Oil Co. v. American Cyanamid Co.*, the Federal Circuit indicated that the specification was the “primary basis for construing the claims” because “the words of the claims must be based upon the description.” 227 USPQ 293, 296 (Fed. Cir. 1985)

In numerous additional cases¹ the Federal Circuit has reiterated the fact that terms used in a claim must be interpreted in view of the specification.

¹ *Innovad Inc. v. Microsoft Corp.*, 59 USPQ2d 1676 (Fed. Cir. 2001) (“In construing the language of a claim, this court consults the specification and relevant prosecution

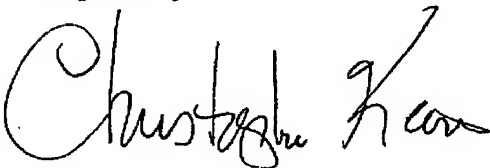
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history to provide context for understanding the meaning of the terms to one of skill in the art at the time of invention."); *Gart v. Logitech, Inc.*, 59 USPQ2d 1290 (Fed. Cir. 2001), *cert. denied*, 534 U.S. 1114 (2002) ("claims do not have meaning removed from the context from which they arose"); *Network, LLC v. Centraal Corp.*, 58 USPQ2d 1076 (Fed. Cir. 2001) ("The claims are directed to the invention that is described in the specification; they do not have meaning removed from the context from which they arose."); *Apple Computer, Inc. v. Articulate Systems, Inc.*, 57 USPQ2d 1057 (Fed. Cir. 2000) ("the claim must be interpreted in light of the teachings of the written description and purpose of the invention described therein."); *Enviroco Corp. v. Clestra Cleanroom, Inc.*, 54 USPQ2d 1449, 1453 (Fed. Cir. 2000) (under "standard claim construction rules," "the specification informs but does not control, the claim construction. Rather, in that process, the claim language itself governs the meaning of the claim. To acquire proper context to understand claim terms, this court also consults the specification, the prosecution history, and where relevant (and not contradictory of intrinsic evidence), extrinsic evidence."); *Zelinski v. Brunswick Corp.*, 51 USPQ2d 1590, 1592-93 (Fed. Cir. 1999) ("It is standard practice that in determining the proper construction of an asserted claim, the court looks first to the intrinsic evidence--the patent specification, including of course the written description, and, if in evidence, the prosecution history."); *Pall Corp. v. Hemasure Inc.*, 50 USPQ2d 1947, 1949 (Fed. Cir. 1999) ("A patent claim is construed by examining the claim in the context of the specification, drawing on the specification for an understanding of what is covered by the claim, and looking to the rejections, explanations, and revisions that comprise the record of the patent examination."); *Loral Fairchild Corp. v. Sony Corp.*, 50 USPQ2d 1865, 1869 (Fed. Cir. 1999), *cert. denied*, 528 U.S. 1075 (2000) ("It is ... necessary to review the specification to determine whether the patentee has assigned any special meaning to claim terms; the specification is 'the single best guide to the meaning of a disputed term.'"); *Vitronics Corp. v. Conceptronic, Inc.*, 39 USPQ2d 1573, 1577 (Fed. Cir. 1996)."); *Georgia-Pacific Corp. v. United States Gypsum Co.*, 52 USPQ2d 1590, 1599 (Fed. Cir. 1999), *cert. denied*, 531 U.S. 816 (2000) ("The specification of the patent in suit is the best guide to the meaning of a disputed term."); *Renishaw PLC v. Marposs Societa' Per Azioni*, 48 USPQ2d 1117, 1122 (Fed. Cir. 1998), ("Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim... The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction."); *C.R. Bard, Inc. v. M3 Systems, Inc.*, 48 USPQ2d 1225, 1230 (Fed. Cir. 1998), *reh'g denied & suggestion for reh'g in banc declined*, 161 F.3d 1380, 49 USPQ2d 1219 (Fed. Cir. 1998), *cert. denied*, 526 U.S. 1130 (1999) (an accused infringer's "proposed interpretation is unsupported by, and indeed is contrary to, the specification. See *Slimfold Mfg. Co. v. Kinkead Indus., Inc.*... (Fed. Cir. 1987) (claims are not interpreted 'in a vacuum,' but are read and understood in light of the specification of which they are a part)."); *Mantech Environmental Corp. v. Hudson Environmental Services, Inc.*, 47 USPQ2d 1732, 1738 (Fed. Cir. 1998) ("[W]e must look to the written description, to determine what one of ordinary skill in the art at the time of the invention would have understood the term as used in the patent to mean. ... If the written description supports the definition of the term that is apparent from the claim limitation, then reading in a further limiting definition would be improper."); *Digital Biometrics, Inc. v. Identix, Inc.*, 47 USPQ2d 1418, 1424 (Fed. Cir. 1998) ("The written description is considered, in particular to determine if the patentee acted as his own lexicographer, as our law permits, and ascribed a certain meaning to those claim terms. If not, the ordinary

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The claims require a hydraulic coupling comprising a tail with an associated, substantially rigid, positioning member that is in contact with the inner bore of a manifold plate when the tail is inserted through the manifold plate. When the term "tail" is interpreted in view of the specification, it is clear that cited reference (Smith) does not disclose a coupling having a tail with an associated, substantially rigid, positioning member. Rather, it discloses a connector having a conventional threaded tail. Moreover the cited reference has no substantially rigid, positioning member that is in contact with the inner bore of a manifold plate when the tail is inserted through the manifold plate. Accordingly, the cited reference does not anticipate the claimed invention under §102(b).

Respectfully submitted:



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meaning, to one skilled in the art, of the claim language controls."); *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 45 USPQ2d 1429, 1433 (Fed. Cir. 1998), ("The best source for understanding a technical term is the specification from which it arose, informed, as needed, by the prosecution history. When the specification explains and defines a term used in the claims, without ambiguity or incompleteness, there is no need to search further for the meaning of the term.").

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(viii) Claims appendix.

1. An undersea hydraulic coupling member comprising:
 - (a) a tail;
 - (b) at least one substantially rigid positioning member associated with the tail, wherein the substantially rigid positioning member is in contact with the inner bore of a manifold plate when the tail is inserted through the manifold plate.
2. The undersea hydraulic coupling member of claim 1 wherein the substantially rigid positioning member is an o-ring.
3. The undersea hydraulic coupling member of claim 1 wherein the substantially rigid positioning member is elastomeric.
4. The undersea coupling member of claim 1 further comprising a retaining ring to attach the hydraulic coupling member to the manifold plate.
5. The undersea coupling member of claim 4 wherein the retaining ring is held in place with a snap ring contained in a groove in the tail.
6. The undersea coupling member of claim 5 wherein the tail has at least two grooves for containing the snap ring to accommodate manifold plates of different thicknesses.
7. An undersea hydraulic coupling member comprising:
 - (a) a tail;
 - (b) at least one substantially rigid positioning member associated with the tail, wherein the substantially rigid positioning member is in contact with the inner bore of a manifold plate when the tail is inserted through the manifold plate; and
 - (c) a retainer ring with a substantially rigid positioning member associated with the face of the retainer ring that will engage with the manifold plate.
8. The undersea hydraulic coupling member of claim 7 wherein the substantially rigid positioning members are o-rings.

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9. The undersea hydraulic coupling member of claim 7 wherein the substantially rigid positioning members are elastomeric.

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(ix) Evidence appendix.

NONE

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(x) Related proceedings appendix.

NONE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Robert E. Smith III

Serial Number: 10/679,908

Filed: 10/06/2003

For: UNDERSEA HYDRAULIC
COUPLING FOR USE WITH
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Confirmation No. 3821

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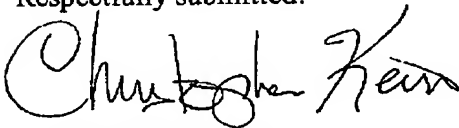
Group art unit: 3671

Atty Docket No. 221-0073US

Commissioner for Patents
P. O. Box 1450
Alexandria, Virginia 22313-1450**REQUEST TO CHARGE DEPOSIT ACCOUNT**

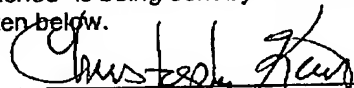
Please charge the \$250 fee (small entity) for filing a brief in support of an appeal specified in 37 CFR §41.20(b)(2) to Deposit Account 501922 (ref. 221-0073US) and this is a request therefor.

Respectfully submitted:

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By:



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